

REMARKS

Claims 1-24 are pending. In the Office Action mailed July 16, 2003, the Examiner rejected all the claims under 35 U.S.C. § 103(a) under various combinations of Corbefin et al. (U.S. Pat. No. 6,269,243), Powell (U.S. Pat. No. 4,916,460), Gilhousen (U.S. Pat. No. 5,559,865), and Mashida (JP408167786A).

1. § 103 rejections: Corbefin in view of Powell

The Examiner rejected Claims 1-4, 7-9, 11-13, 15-20, 23, and 24 as being unpatentable under 35 U.S.C. § 103(a) over Corbefin et al. in view of Powell.

According to M.P.E.P. § 2143, in order to establish a prima facie case of obviousness of a claimed invention by applying a combination of references, the proposed combination must teach or suggest all of the elements of the claimed invention. In addition, there must be some motivation to combine the reference teachings and a reasonable expectation of success. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in an applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Applicant respectfully submits that one of ordinary skill would not be motivated to combine Corbefin et al. with Powell.

Corbefin et al. discloses a device including a transponder having a central unit and means of authority, along with first and second antennae to allow the use of the radiocommunication means on an aircraft. The central unit and means of authority act, on the basis of power-matching, to "[compel] a radiocommunication means to operate at reduced power and for controlling the operation thereof." (*See, e.g., Corbefin et al., col. 2, lines 27-33.*) Thus, Corbefin et al. focuses on reducing potential interference that may be caused from a radiocommunication means (i.e. a portable phone). Corbefin et al. is silent on how to reduce potential interference

from the remaining equipment, including the central unit, means of authority, and first and second antennae.

Powell, on the other hand, simply discloses a fiber optic distributed antenna system for use in a tunnel or building, for example. Powell teaches how fiber optics are an improvement over the prior art co-axial cable "leaky feeder" system because for the typically long cable lengths required in a tunnel or building, a fiber optic system does not suffer from the signal attenuation that a leaky feeder system would. *See* Powell, col. 3, lines 38-61. The cost advantages referenced in Powell are also likely due to the absence of repeaters (line 48) that a co-axial system might require to overcome attenuation problems over long distances.

In contrast, Applicant's invention is designed for much shorter distances. Most aircraft passenger compartments are less than a couple hundred feet, so attenuation would not likely be a problem. Thus, additional regenerating repeaters would not likely be required and the advantages of fiber optics taught in Powell would not be meaningful. In reality, for shorter distances, the costs involved with implementing fiber optics (including the lasers 24, photodetectors 30, filters 56, and amplifiers 58 of Powell) may actually be higher, which would likely be a negative factor for one of ordinary skill.

The other motivation cited by the Examiner, i.e., ensuring that signals traveling within the fiber optic network are unaffected by radio frequency interference, addresses a problem that might be unappreciable in the short cable lengths that would be required in an aircraft setting. Moreover, the Examiner has not provided any evidence that an aircraft is a noisy radio environment. The opposite is likely to be true, since an aircraft's flight communication and/or control system may be susceptible to such noise, and precautions are to be taken to prevent any

such noise from occurring. In fact, this is the very problem addressed by Applicant's invention, and it is recognized in neither Corbefein et al. nor Powell.

Because no proper motivation has been shown to combine Corbefein et al. with Powell, Applicant respectfully submits that a prima facie case of obviousness has not been made. Applicant therefore respectfully requests that Claims 1-4, 7-9, 11-13, 15-20, 23 and 24 be allowed.

2. § 103 rejections: Corbefein in view of Powell and further in view of Gilhousen

The Examiner rejected Claims 5, 6, 10, 18, and 21 as being unpatentable under 35 U.S.C. § 103(a) over Corbefein in view of Powell and further in view of Gilhousen. Because a prima facie case of obviousness has not been made for combining Corbefein et al. with Powell, and because Gilhousen fails to overcome this deficiency, Applicant respectfully submits that Claims 5, 6, 10, 18, and 21 are allowable and requests notice to that effect.

3. § 103 rejections: Corbefein in view of Powell and further in view of Mashida

The Examiner rejected Claims 14 and 22 as being unpatentable under 35 U.S.C. § 103(a) over Corbefein in view of Powell and further in view of Mashida. Because a prima facie case of obviousness has not been made for combining Corbefein et al. with Powell, and because Mashida fails to overcome this deficiency, Applicant respectfully submits that Claims 14 and 22 are allowable and requests notice to that effect.

CONCLUSION

In conclusion, Applicant respectfully requests favorable reconsideration and allowance of
all pending claims 1-24.

Respectfully submitted,

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